ATTACHMENT C
SUPPLEMENTAL INFORMATION PERTAINING TO PARAMETER/CONSTITUENT LOADING TABLES

Bromide Loading Notes

Note a. Agricultural Drains

3/18/90

Lower Sacramento Basin - Bromide loads from agricultural drains were estimated based on water quality data reported in CUWA (1995) combined with flow data reported in CVRWQCB (1988). Bromide concentrations were reported at the Natomas East Main Drain that consisted of 44 samples obtained over the period of ~~10/1/89~~ through 8/29/93. The mean bromide concentration was about 0.1 mg/l and the standard deviation was 0.035. The mean value was assumed to be representative of major drains in the Sacramento Basin, specifically Sacramento Slough, Colusa Basin Drain, RD 108, RD 1000, and Toe Drain for which flow data for 1985 are provided in Table V-3 (CVRWQCB, 1988). The total flow-rate from these drains in 1985 was reported to be about 1.4x10^6 acre ft.

Calculated from the data presented in the CUWA report

The equation used to estimate mean annual load was:

Load (lbs/yr) = 2.71 x Q (acre-ft/yr.) x conc. (mg/l)

where the factor 2.71 is for units conversion.

Using the mean concentration of 0.1 mg/l and the annual flow-rate of 1.4x10^6 acre ft/yr. in this equation yields about 380,000 lbs/yr which is the value reported in Table 3.6.

Note e. Basin Emissions

The sources of data for estimating basin emissions varied depending on the constituent, but included: the Study of Drinking Water Quality in Delta Tributaries (CUWA, 1995), water quality data collected as part of DWR's Municipal Water Quality Investigations Program, USGS water quality data (EarthInfo, 1996), water quality data reported by the Interagency Ecological Program (IEP), and special studies of water quality such as the "Water Quality Data, San Joaquin Valley, California, April 1987 to September, 1988 (Shelton and Miller, 1991). Flow data sources included USGS flow data as reported in its annual Water Resources Data Reports, and DWR's DAYFLOW database.

Lower Sacramento Basin - Figure I-2 (CUWA, 1995) shows bromide concentrations measured at Greene's Landing on the Sacramento River for the period of 1/9/90 through 3/11/94. Of 64 samples obtained during that period, 31 are reported as 0.02 mg/l and 19 are reported as 0.01 mg/l. Thus 50 samples (about 80%) of the total number of samples appear to be values assigned

seasons (May through June) and non-rice season because most pesticides are applied during the rice season.

relationship to Cd?